

# Mouse Adenoviruses

- mouse adenovirus type 1 (MAd-1) (strain FL)
- mouse adenovirus type 2 (MAd-2) (K87)

## Host species

- mouse (positive serologic results in rats are most likely due to a yet unidentified rat adenovirus (Smith and Barthold, 1987))

## Organotropism

- MAd-1: polytropic
- MAd-2: intestine

## Clinical disease

- none in naturally infected immunocompetent animals
- wasting disease in athymic mice

## Pathology

- MAd-1:
  - only experimental infections described
  - necrotic foci and intranuclear inclusion bodies in various organs (brown fat, myocardium, adrenal glands etc.)
- MAd-2:
  - only intestine affected
  - intranuclear inclusion bodies in mucosal epithelium little inflammation

## Morbidity and mortality

- morbidity: no information, mortality: none in natural infections
- significant strain differences in susceptibility (x6000) (Kring et al., 1995)

## Zoonotic potential

- none

## Special considerations

- natural occurring MAd-1 has not been reported for many years
- prevalence of MAd-2 is largely unknown in Europe (in Australian wild mice: 37% (Smith et al., 1993))
- MAd-1 and MAd-2 do not cross-react serologically

## Interference with research

### Immunology

- transient increase in IL-12 release from macrophages (Coutelier et al., 1995)

### Infectiology

- raises susceptibility to *E. coli* pyelonephritis during persistent infection (Ginder, 1964)
- accelerates experimental scrapie infection (Ehresmann and Hogan, 1986)

### Physiology

- induces blood-brain barrier dysfunction (Guida et al., 1995)

## References

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